

CLAIMS

1. A process for producing a modified polymer having, in the molecule thereof, an organic group introduced therinto and derived from a compound(s) having a free radical(s) comprising reacting a polymer with a compound(s) having the free radical stable at an ordinary temperature in the presence of oxygen, after or while a carbon radical(s) is generated in the polymer.

2. A process for producing a modified polymer as claimed in claim 1, wherein said compound having, in the molecule thereof, a free radical(s) stably present in the presence of oxygen at ordinary temperature contains in the molecule thereof at least one free radical selected from the group consisting of a nitroxide, hydrazyl radical(s), aryloxy radical(s) and trityl radical(s).

3. A process for producing a modified polymer as claimed in claim 1 or 2, wherein said organic group is at least one group selected from the group consisting of a  $C_1$  to  $C_{30}$  alkyl group, allyl group, amino group, isocyanate group, hydroxyl group, thiol group, vinyl group, epoxy group, thiirane group, carboxyl group, carbonyl-group containing group, amide group, ester group, imide group, nitrile group, thiocyan group,  $C_1$  to  $C_{20}$  alkoxy group, silyl group and alkoxysilyl group.

4. A process for producing a modified polymer as claimed in claim 1, 2, or 3, wherein a means for generating a carbon radical in said polymer is at least one means selected from a radical initiator, electron beam, light and radiation.

5. A process for producing modified polymer as claimed in claim 4, wherein the amount of use of the radical initiator is 0.1 to 6.0 parts by weight based upon 100 parts by weight of said polymer.

6. A modified polymer obtainable by a process according to any one of claims 1 to 5.